



Summary

(<https://twp.artemis-analytical.com/summary>)

# Your results

This is a complete overview of what was tested in Your sample.



**Result**

(<https://twp.artemis-analytical.com/results>)

## Physical Properties



Compare

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These are the major test parameters that measure the mineral content of your water, how it conducts electricity and whether it is acidic or basic in nature.



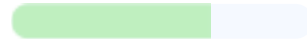
Knowledge

(<https://twp.artemis-analytical.com/knowledge>)

## Conductivity

Conductivity is a measure of how easily electricity passes through your water. Hard water contains calcium and magnesium and will have a higher conductivity. High conductivity does not necessarily indicate a problem with your water.

**620  $\mu\text{S}/\text{cm}$**

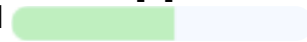


Good

## Tds

Total dissolved solids (TDS) is a useful measure of the total quantity of minerals in your water. Like conductivity, hard water will have a higher TDS but this isn't necessarily an indication of any water issues.

**396.8 ppm**

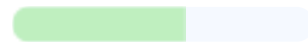


Good

## pH

Acidic or Basic: pH determines whether your water is slightly acidic (less than 7) or slightly basic (more than 7). Soft waters will tend to be slightly acidic and hard waters slightly basic. Pure distilled water will have a pH of 7.

**7.5**

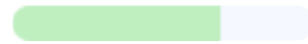


Good

## Hardness

Water Hardness is defined as the concentration of calcium and magnesium salts present in the water expressed in terms of calcium carbonate.

**169.6**



Good

## Character

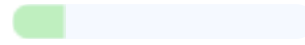
These are the major minerals present in your water, the mix of these will determine characteristics of your water such as its taste and hardness.

## Sodium

Sodium is an important nutrient for your body but at higher concentrations may affect blood pressure.

Sodium consumed in drinking water is normally a small component of your total dietary intake. Elevated levels of sodium will affect the taste of your water.

**66.2 ppm**

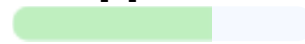


Good

## Calcium

Calcium is commonly found in water and contributes to water 'hardness'. Calcium is an essential nutrient and when consumed from drinking water supplements our dietary intake and keeps us healthy by building bones and regulating muscle contractions, including your heartbeat.

**25.1 ppm**

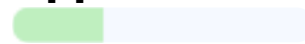


Good

## Potassium

Potassium is an essential element for humans and commonly found in our drinking water. Within the body, potassium works in antagonism to sodium, adequate dietary intake of potassium is important for maintaining healthy blood pressure.

**3 ppm**

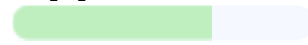


Good

## Fluoride

A naturally occurring mineral found across the country in different concentrations. Controversially, fluoride is also sometimes added by water companies to help prevent dental decay.

0 ppm

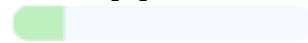


Good

## Magnesium

Magnesium is often found in water and along with calcium can contribute to water hardness. Our bodies need magnesium to help turn the food we eat into energy. Magnesium affects the taste of water and many people enjoy the taste of mineral waters with high concentrations.

26.5 ppm



Good

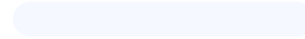
## Agricultural

These are the contaminants that may occur from agricultural sources. Fertilizers used in agricultural areas can leach into water courses and have the potential to contaminate drinking water.

## Phosphate

Phosphate is an anion consisting of phosphorus and oxygen. Water companies treat drinking water with phosphate to help prevent metal pipes, particularly lead, dissolving into the water.

**0 ppm**

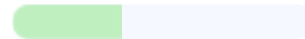


Good

## Nitrite

Nitrites are often found in water with high levels of nitrate. In small quantities, nitrites are used by the food industry as preservative. They have the potential to react with other substances to form nitrosamines which are classified as probable carcinogens as they can damage our DNA.

**0 ppm**

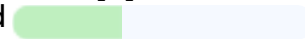


Good

## Nitrate

Nitrate is an important nutrient for plants and is used in many fertilisers. Agricultural run-off rich in nitrate can contaminate rivers and groundwater used for collecting drinking water. Whilst nitrate is relatively stable it can be converted to nitrite which is much more reactive and hazardous to health.

**17.9 ppm**



Good

## Toxic Metal

These are toxic metals that are sometimes found in drinking water, high levels of these can be hazardous to our health.

### Cobalt

Cobalt is not commonly found in high concentrations in drinking water. Long term exposure to Cobalt may lead to serious health problems.

0 ppb

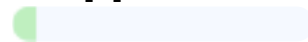


Good

### Arsenic

Arsenic is highly toxic and occurs naturally in rocks. Arsenic can leach into groundwater and is a particular problem in water extracted from boreholes in parts of the country like Cornwall.

0.2 ppb



Good

### Barium

Barium is a mildly toxic metal that is commonly found in water. At very high levels barium has been shown to raise blood pressure.

79.2 ppb



Good

## Cadmium

Cadmium is highly toxic, exposure is a risk factor to a large number of illnesses including kidney disease, atherosclerosis, hypertension and cardiovascular disease.

**0 ppb**



Good

## Bismuth

Bismuth sits between two highly toxic metals (lead and polonium) on the periodic table yet is far less toxic. A compound of bismuth (bismuth subsalicylate) is used in antidiarrhoeal medicines such as Pepto Bismol

**0 ppb**



Good

## Boron

Boron is found in natural groundwater. Both short and long-term exposure to elevated levels of boron is believed to cause atrophy (shrinking) of the testicles leading to reduced sperm production and loss of fertility.

**77.3 ppb**



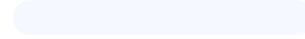
Good

## Aluminium

Studies have suggested that high concentrations of aluminium salts may be linked to neurological disorders such as Alzheimer's disease.

Aluminium sulphate is sometimes used by water industry, in Camelford, Cornwall in 1998 3,000 times the admissible level was added to the water supply leading to many reports of adverse health effects.

**30 ppb**

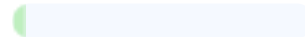


Good

## Manganese

Manganese may be present in drinking water from the corrosion of steel alloys. Long term exposure to high levels of manganese may damage the nervous system and lead to symptoms similar to Parkinson's disease.

**0.9 ppb**

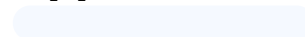


Good

## Lead

Lead is highly toxic and a common contaminant of drinking water. Lead may leach into drinking water from lead pipes which were widely used in the UK before they were banned in the 1980s.

**0 ppb**



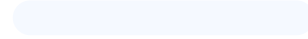
Good



## Chromium

Chromium is widely used in industry and can contaminate drinking water sources. Erin Brockovich exposed chromium contamination of drinking water in the US.

**0.1 ppb**

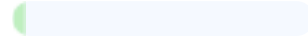


Good

## Nickel

Low levels of nickel are commonly found in UK drinking water but higher level contamination can occur from plumbing and fittings. Nickel contamination is often associated with taps and fittings.

**0.7 ppb**

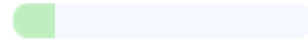


Good

## Selenium

Selenium is an essential nutrient, some studies suggest it may reduce cancer risk. At higher levels selenium is known to be harmful and can lead to hair and nail loss, peripheral numbness and circulatory problems.

**1.4 ppb**

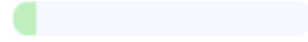


Good

# Thallium

Thallium is a naturally occurring metal present in the environment at low levels. It is highly toxic and was once used as rat poison (now prohibited). Long term exposure to thallium can lead to accumulation in bones, kidneys and the nervous system.

**0 ppb**



Good

## Water Nutrient

These are elements that are unlikely to be harmful except at extremely high levels. Some metals and minerals can contribute to our dietary intake of nutrients.

# Iron

Iron is an abundant mineral commonly found in drinking water. Iron is an essential nutrient and helps the body transport oxygen in blood, a deficiency may lead to anaemia. We gain most of our iron from the food we eat. High levels of iron in water may lead to discoloration and an undesirable taste.

**58.4 ppb**



Good

## Zinc

Zinc occurs naturally in the environment at low levels, but much higher levels may sometimes be found in drinking water due to leaching from pipes and fittings. Zinc is an essential micronutrient that helps the body make new cells, metabolise food and heal. Adults need between 7mg and 10mg of zinc a day most of which we get from our food.

**5.6 ppb**



Good

## Copper

Copper is a common metal used in the pipes of domestic plumbing. Whilst some studies have suggested that high levels of copper may be toxic, at lower levels copper is an essential micronutrient. Together with iron copper enables the body to form red blood cells. Sufficient dietary copper may help prevent cardiovascular disease and osteoporosis too.

**0.6 ppb**



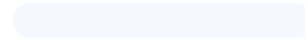
Good

# Strontium

Strontium is commonly found in water, it is non-toxic and has no known specific function in humans.

Strontium is chemically similar to calcium and can therefore be absorbed by the body and incorporated in structures such as bone.

191.2 ppb

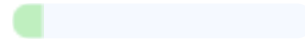


Good

# Lithium

Lithium is not commonly considered a micronutrient. However, the mood stabilising properties of lithium have been well studied and high levels are used commonly in the treatment of neurological conditions such as bipolar disorder. Whilst the science is far from conclusive yet, studies have investigated lithium levels occurring naturally in drinking water and suggested that higher concentrations may correlate with lower rates of suicide.

0.7 ppb



Good

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